This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (withdrawn): An isolated polynucleotide comprising a sequence selected from the group consisting of: SEQ ID NO: 1-12 and 25.

Claim 2 (withdrawn): An isolated polynucleotide comprising a sequence selected from the group consisting of:

(a) complements of SEQ ID NO: 1-12 and 25;
(b) reverse complements of SEQ ID NO: 1-12 and 25;
(c) reverse sequences of SEQ ID NO: 1-12 and 25;
(d) sequences that are 100-mers of a sequence of SEQ ID NO: 1-12 and 25;
(e) sequences that are 40-mers of a sequence of SEQ ID NO: 1-12 and 25; and
(f) sequences that are 20-mers of a sequence of SEQ ID NO: 1-12 and 25.

Claim 3 (withdrawn): An isolated polynucleotide comprising a sequence selected from the group consisting of:

(a) sequences having at least 75% identity to a sequence of SEQ ID NO: 1-12 and 25;
(b) sequences having at least 90% identity to a sequence of SEQ ID NO: 1-12 and 25;
(c) sequences having at least 95% identity to a sequence of SEQ ID NO: 1-12 and 25;
(d) sequences having at least 98% identity to a sequence of SEQ ID NO: 1-12 and 25; and
(e) sequences that hybridize to a sequence of SEQ ID NO: 1-12 and 25 under stringent hybridization conditions,

wherein the polynucleotide encodes a polypeptide having substantially the same functional properties as a polypeptide encoded by SEQ ID NO: 1-12 or 25.

Claim 4 (withdrawn): An isolated oligonucleotide probe or primer comprising at least 10 contiguous residues complementary to 10 contiguous residues of a nucleotide sequence recited in claim 1.

Claim 5 (withdrawn): A kit comprising a plurality of oligonucleotide probes or primers of claim 4.

Claim 6 (currently amended): An isolated polypeptide encoded by ~~a polynucleotide of claim 1~~ SEQ ID NO: 4.

Claim 7 (currently amended): An isolated polypeptide comprising ~~an amino acid sequence selected from the group consisting of: sequences recited in SEQ ID NO: 13-24 and 26~~ SEQ ID NO: 16.

Claim 8 (original): The isolated polypeptide of claim 7, wherein the polypeptide is in multimeric form.

Claim 9 (currently amended): An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) sequences having at least 75% identity to ~~a sequence of~~ SEQ ID NO: ~~13-24 and 26~~ 16;

(b) sequences having at least 90% identity to ~~a sequence of~~ SEQ ID NO: ~~13-24 and 26~~ 16;

(c) sequences having at least 95% identity to ~~a sequence of~~ SEQ ID NO: ~~13-24 and 26~~ 16;

(d) sequences having at least 98% identity to ~~a sequence of~~ SEQ ID NO: ~~13-24 and 26~~ 16; and

(e) functional portions of ~~a sequence of~~ SEQ ID NO: ~~13-24 and 26~~ 16,

wherein the polypeptide possesses an ability to bind ice crystals.

Claim 10 (withdrawn): An isolated polynucleotide that encodes a polypeptide of any one of claims 7-9.

Claim 11 (withdrawn): A genetic construct comprising a polynucleotide of any one of claims 1-3.

Claim 12 (withdrawn): A transgenic cell comprising a genetic construct according to claim 11.

Claim 13 (withdrawn): A genetic construct comprising, in the 5'-3' direction:

(a) a gene promoter sequence;

(b) a polynucleotide sequence comprising at least one of the following: (1) a polynucleotide coding for at least a functional portion of a polypeptide encoded by a polynucleotide of any one of claims 1-3; and (2) a polynucleotide comprising a non-coding region of a polynucleotide of any one of claims 1-3; and

(c) a gene termination sequence.

Claim 14 (withdrawn): The genetic construct of claim 13 wherein the polynucleotide is in a sense orientation.

Claim 15 (withdrawn): The genetic construct of claim 13 wherein the polynucleotide is in an anti-sense orientation.

Claim 16 (withdrawn): A transgenic cell comprising a genetic construct of claim 13.

Claim 17 (withdrawn): An organism comprising a transgenic cell according to claim 16, or progeny thereof.

Claim 18 (withdrawn): A method for modulating cold tolerance in an organism, comprising stably incorporating into the genome of the organism at least one polynucleotide of any one of claims 1-3.

Claim 19 (withdrawn): The method of claim 18, wherein the organism is selected from the group consisting of: plants; mammals; insects; fungi; archaea; and bacteria.

Claim 20 (withdrawn): The method of claim 18, comprising stably incorporating into the genome of the organism a genetic construct of claim 13.

Claim 21 (withdrawn): A method for producing a plant having altered cold tolerance, comprising:

(a) transforming a plant cell with a genetic construct of claim 13 to provide a transgenic cell; and

(b) cultivating the transgenic cell under conditions conducive to regeneration and mature plant growth.

Claim 22 (withdrawn): The method of claim 21 wherein the plant is selected from the group consisting of: *Lolium* species: *Festuca* species; and *Eucalyptus* species.

Claim 23 (withdrawn): A method for modifying the activity of an antifreeze protein in an organism comprising stably incorporating into the genome of the organism a genetic construct of claim 13.

Claim 24 (withdrawn): A method for modifying the activity of an antifreeze protein in an organism, comprising introducing into cells of the organism double stranded RNA corresponding to a polynucleotide of any one of claims 1-3, thereby inhibiting expression of a polypeptide encoded by the polynucleotide.

Claim 25 (original): A method for cryopreserving a cell or tissue, comprising contacting the cell or tissue with at least one polypeptide of any one of claims 7-9.

Claim 26 (original): A food additive comprising a polypeptide of any one of claims 7-9.

Claim 27 (currently amended): A frozen food product comprising a food additive of claim ~~25~~ 26.

Claim 28 (original): A method for decreasing an amount of time required to dehydrate a composition comprising contacting the composition with a polypeptide of any one of claims 7-9.

Claim 29 (original): A composition comprising a polypeptide of any one of claims 7-9 and a physiologically acceptable carrier.

Claim 30 (withdrawn): A method for the treatment of a disorder characterized by the presence of unwanted biocrystals in a patient, comprising administering to the patient a composition of claim 29.

Claim 31 (original): A method for preserving the viability of a molecular biology reagent, comprising contacting the reagent with a polypeptide of any one of claims 7-9.

Claim 32 (withdrawn): A method for destroying unwanted tissue in a patient, comprising:

(a) perfusing the tissue with a solution comprising a polypeptide of any one of claims 7-9; and

(b) freezing the tissue for a period of time sufficient to mortally damage cells within the tissue.

Claim 33 (withdrawn): The method of claim 32, wherein the undesirable tissue is tumor tissue.

Claim 34 (original): A composition comprising at least one polypeptide of any one of claims 7-9 and an agricultural carrier.

Claim 35 (withdrawn): A method for protecting a plant from damage due to frost or freezing, comprising applying a composition of claim 34 to the plant.